

“We’re Going to Figure That Out Together”: Implications of Segregating Programs in Content Literacy Courses

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Many secondary teacher preparation programs require that undergraduate candidates complete a literacy course, usually taught within a college of education, where 30 or more teacher candidates from various majors are enrolled in the same course. University instructors teaching literacy courses may have difficulty in developing course content and assignments which are relevant to all teacher education fields. This paper explains how one university implemented a literacy course for PETE (physical education teacher education) majors only, in order to focus on how literacy can be incorporated into high school physical education courses. Nineteen teacher candidates were invited to register for a section of literacy in the content area for PETE majors. Multiple means of data collection were employed to engage participants (pre- and post- surveys, electronic discussion board and interviews). The purpose of the study is to find out if it is beneficial for teacher candidates to participate in a segregated content literacy methods classes compared to traditional (mixed majors) content literacy methods, and the impact of a non-traditional teacher education literacy class for PETE candidates. Recommendations for future research in regards to working with content literacy across various content areas are made.

Keywords: teacher education, content literacy, physical education

Introduction

Many secondary teacher preparation programs require that undergraduate teacher candidates complete a literacy course, usually taught within a college of education, which focuses on the integration of reading, writing, listening and speaking. All teacher education candidates must be able to include these concepts into their content area (e.g., physical education, mathematics, music, etc.), in order to demonstrate the connections amongst all school subjects.

Like most general secondary teacher education courses, this course in literacy usually includes 30 teacher candidates from across 15-20 different content areas. While some instructors for this course may be content literacy experts, meaning they are able to connect literacy across all disciplines, other college instructors may not. Because of the lack of faculty with the specific expertise in content literacy, faculty with expertise in general English or general literacy may have to teach the course, thus not having enough expertise to connect literacy to each content area. In order for future teachers to incorporate aspects of literacy into their teaching of their own content areas, college instructors must be able to assist their teacher candidates in doing so.

At a large Midwestern university, as with most universities, teacher candidates complete the required literacy

course with majors from across campus. Candidates within PETE (physical education teacher education) frequently voiced their concerns that the required content literacy course and literacy professors, who taught the course, could not relate the teaching of literacy to the field of physical education. As a result of this ongoing concern, the Department of Curriculum and Instruction was able to approve the offering of a segregated section of the literacy course for PETE majors, with the intention of testing the theory that PETE candidates might be able to better incorporate literacy into their subject areas than in a traditional, integrated collegiate course. Several candidates in this unique literacy section volunteered to participate in this study and discuss their experiences.

The purpose of this study was to examine what implications, if any, are there to teaching a segregated content literacy course for PETE candidates versus a traditional and multi-majors section.

Literature Review

Content literacy at the middle school and high school level provides students with literacy skills in specific content areas. Reading, writing, listening and speaking are different for every content area, and in order for students to access the information for every content area, content area teachers must teach their students how to manipulate the material so that they can obtain information and become one step closer to being experts in the content area (e.g., mathematics, history and physical education) (Grady, 2002). Content area literacy teaches students how to access information in different ways. Students learn how to make decisions and apply knowledge they have learned from various resources (e.g., text, video, presentations, on-line sources and graphic organizers). Teaching word recognition, vocabulary acquisition and developing fluency in content literacies help students to access, organize and synthesize new information (Newman-Thomas & Wexler, 2007).

Grady (2002) explained that high school students must enhance their knowledge in many content areas, and they did this with the help of their teachers who modeled and supported their learning. Literacy strategies were different from one discipline to another, and some believed the best way for students to learn these strategies was from an instructor in that field of study.

Because of the realized importance of all types of literacy, many states in the US are currently requiring a separate content literacy course for all secondary teacher education majors. However, teacher candidates, like many seasoned teachers, do not initially see the value of incorporating literacy practices into their content area. In addition, some teacher candidates believe that the teaching of reading and writing is the job of the English teacher and not that of other content areas. Limited research is available focusing on how teachers of school subjects like physical education, music, art and technology, incorporate literacy into their teaching. In addition, research is limited as to how teacher education programs prepare teacher candidates to incorporate literacy into in their respective fields of study on a daily basis (Spence, 2003). In fact, according to Buell and Whittaker (2001), it has only been recently that teacher preparation programs even required PETE majors to take literacy courses.

In order for all teachers to incorporate literacy, teacher education programs must meet the needs of all their candidates, by providing and demonstrating concrete examples and learning opportunities that pertain to their field of study. This is true for PETE candidates. Buell and Whittaker (2001) discussed that, "Content literacy in physical education means that students can use general literacy to acquire knowledge in a specific movement, sport, or fitness context" (p. 32), and that it is relevant to all school subjects, "not just those relying heavily upon printed material" (Buell & Whittaker, 2001, p. 32).

Another reason for the integration of literacy into all content areas is to keep all content areas available to students. Many school districts are removing physical education courses and other programs from the

curriculum in order to improve daily test scores. The importance of physical education remaining in the school curriculum directly relates to the obesity and health concerns facing today's K-12 population in the US. The National Health and Nutrition Examination Survey, in a comparison of data collected from 1971-1974 and 2003-2006, revealed that obesity levels in the US have doubled and tripled since the 1970's among children ages 5 through 19 years old (Center for Disease Control and Prevention, 2009). When all teachers demonstrate the inter-relatedness of their particular content area to the entire curriculum, such as literacy and physical education, and K-12 students experience these connections in all of their classes, removing subjects from the curriculum does not seem practical. Thus, teacher education programs must be able to demonstrate ways in which all content areas can be incorporated into any educational experience. Within the physical education profession, literacy can be incorporated on a daily basis if teacher candidates are given relevant opportunities during their undergraduate experience.

Content literacy is not only important in the classroom, but also for students' futures. As stated by Moore, Bean, Birdyshaw and Rycik (1999):

Adolescents entering the adult world in the 21st century will read and write more than at any other time in human history. They will need advanced levels of literacy to perform their jobs, run their households, act as citizens, and conduct their personal lives. They will need literacy to cope with the flood of information they will find everywhere they turn. They will need literacy to feed their imaginations so they can create the world of the future. In a complex and sometimes even dangerous world, their ability to read will be crucial. (p. 110)

The purpose of this investigation was to determine if it was beneficial for teacher candidates to participate in content specific literacy methods classes compared to traditional (mixed majors) content literacy methods and to determine what impact, if any, exists in a non-traditional teacher education literacy class for PETE candidates.

Background/Demographics

This study was conducted at a large Midwest university. Current enrollment is over 20,000 students, with approximately 30% of the students enrolled in one of the 35 teacher education programs. Twenty of these programs are secondary and K-12 teacher education programs with an enrollment of about 2,500 undergraduates (see Appendix A). During the Fall and Spring semesters, up to 10 sections of the content literacy course are offered for the secondary and K-12 majors, with 25 students enrolled in each class.

Methodology

Participants and Setting

This investigation occurred in the US and included undergraduate PETE candidates enrolled in a segregated section of a required content literacy course. This specific section, PETELIT (literacy in physical education teacher education), was taught by a retired high school English teacher with adjunct faculty status at the university. The two researchers were not involved in the teaching or grading of this course. Nineteen PETE candidates were invited to register for this section of "literacy in the content area", and all 19 registered for the course. A traditional section of "literacy in the content area" has an enrollment of approximately 25 students from various majors across campus. During the first week of the semester, the researchers contacted all 19 teacher candidates to seek their voluntary participation in this study. Research participants were sought through email contact and in-class recruitment, with one of the researchers visiting the class to seek participants.

Data Collection and Analysis

A holistic method of research was utilized for this study, as it is ethnographic in that the class and instructor were given minimal interventions, so that the class could be studied in as a natural situation as possible (Cresswell, 2009).

Multiple means of data collection were incorporated to gain insights from PETE candidates. An 11 item Likert and open-ended question survey (see Appendix A), in which 7 out of 19 possible participants responded, was administered at the beginning of the semester. Questions were designed to obtain preliminary insights on what candidates expected in their PETE intensive content literacy course. The second data source was through a confidential electronic discussion board (see Appendix B), access to the discussion board was available throughout the semester. Three PETELIT students participated in the electronic discussion board. A group interview, the third source of data, was held after the final exam period, in which three PETE candidates participated. An interview guide (see Appendix C) structured the conversation and focused on comparing pre-class and post PETELIT knowledge, perceptions on the role of literacy in physical education, and their overall impression of the course. Follow-up probes were incorporated into the interview process to “give cues to the interviewee about the level of response” that was desired (Patton, 2002, p. 372). The interview was conducted by the two researchers to “help reduce the potential bias that comes from a single person doing all the data collection ...” (Patton, 2002, p. 560). The group interview lasted approximately two hours and was recorded and transcribed by one of the researchers. Transcripts of the interview were returned to each participant. The fourth and final data source was a post survey to obtain their final thoughts on being a part of a specific content literacy course. This survey was identical to the survey at the beginning of the course with Likert scale and open-ended questions. The responses at the end of the semester were compared to their responses at the beginning of the semester.

The questions guiding this study are:

(1) Is it beneficial for teacher candidates to participate in content literacy methods classes compared to traditional (mixed majors) content literacy methods?

(2) What impact, if any, exists in a non-traditional teacher education literacy class for PETE candidates?

Data analysis began immediately upon receiving survey and discussion board data and assisted in developing the interview protocol guide. Both researchers read through the surveys, discussion board comments and interview transcriptions individually, developing a coding system. Initial themes were discussed, with common themes identified between both researchers.

Results

Survey Data

Differences were found between responses provided at the beginning and ending of PETELIT, based on the survey results. In analyzing the pre-class survey, PETELIT candidates believed that they came into the course with an open mind; they had a general idea about literacy in relation to communication, reading and writing; believed that literacy assisted K-12 students in learning; believed that their major area of study already identified ways to incorporate literacy into teaching physical education, general classes in teacher education were not relevant to PETE majors, that is, they did not necessarily believe writing should be a part of physical education, but did believe that “listening” was an important literacy strategy in the physical education curriculum. Several differences were noted in comparing the pre-class surveys with post-class data. Participants,

while still seeing themselves as “open-minded” when they began the class in September, admitted they were a bit hesitant in taking the course. Upon completion of PETELIT, candidates stated that it was an important class for their major, and having a section with all PETE majors was helpful. Differences were also found in how these teacher candidates viewed incorporating literacy into their teaching, and specific examples from the data are provided below:

(1) While PETELIT students were knowledgeable about using physical education periodicals in their teaching, participants were now “open” to also using fiction;

(2) Speaking and listening continued to be viewed as a “high level” literacy strategies used in the physical education classroom;

(3) Participants identified the use of journals as an effective way of incorporating writing into the physical education curriculum. PETELIT participants saw journal writing as a method of having students write about their experiences, reflecting on what they had learned and as an assessment strategy for physical education teachers.

Additional post-class findings revealed that participants believed the role of literacy enhances the educational experiences in physical education, helps students understand multiple domains and motivates the K-12 student. Literacy was also viewed as a “way to legitimate a program” during a time period when school districts were cutting educational programs. Findings also revealed that teacher candidates believed their course expectations were met and that, “It was nice to actually be involved in a Curriculum class where the examples and content taught as actually relatable”. In their own words, respondents acknowledged: “The incorporation of literacy into physical education classes is important, it is possible, and teachers should not be afraid to do it”. “Physical education is a place to learn not just a skill or game, but where I can incorporate many different literacy activities that go with that skill or game”. Most importantly, PETE candidates came away from this course with numerous strategies for incorporating literacy into their future classrooms (e.g., book talks, physical activities that include literacy, etc.).

Discussion Board

The electronic discussion board was designed to give PETE candidates the opportunity to tell the researchers about their experience in the content literacy class. Participants assigned themselves pseudonyms and one of the researchers was given this information to ensure that they had approved the use of their responses for research purposes.

The first question in the discussion board stated that, “You have been attending the content literacy class designed specifically for physical education majors for about one month now. Describe the class and the content and how you think it relates to you as a teacher”. One participant responded stating, “I can see myself using aspects of content literacy. I think it helps students reflect on their performances and hopefully it would help them to improve”. Another was more skeptical, “I (had) never seen physical education trying to incorporate any type of literacy into their classroom and I have never seen any classroom teacher incorporating physical education into an English classroom”.

The next questions were provided at the same time about two weeks later. “Part of what you’ve discussed in class includes the use of reading and writing in content areas. Some of these strategies you’ve learned can be adapted for listening and speaking. What are the strategies that you have discussed that you believe will be useful in your future physical education classrooms” and “In your current and past clinical experiences for other classes, what you have observed to support and/or disprove what you are learning in the content literacy

course”. In responding, a participant said that demonstrating the meaning of vocabulary had been one method of using literacy. In addition, assessment was the one way that reading and writing had been visible in their observations of physical education classrooms. Another added:

I think having students do projects where they create a game would work well. Instead of just turning their ideas into the teacher, they could be required to teach it to a small group of students. This would work on their verbal skills and speaking in front of a small group of people.

Lastly, one participant stated that “literacy is not that visible in the field and that is part of the reason why it is difficult to believe it can be used and that it is of value”.

Three weeks later, the question posted was “As you are entering the last half of the semester with the Content Literacy class, what questions or concerns do you have regarding literacy, regarding the course, regarding teaching? Is having a separate content literacy course for physical education majors appropriate”. One response that, “...most literacy strategies will work in most subject matters, but the philosophy behind physical education is to have students active and not sitting around, incorporating a literacy project to take away from their time”. The same respondent stated:

I believe my philosophy has changed because of this class because it is not about me, it is about those kids that you are teaching or trying to mold. We must try our best to reach each and every student that we come in contact with and try our best to help them.

Another stated, “I do see how to put just a little literacy in each lesson for about two to three minutes through taking this course”. Finally, a negative case (Patton, 2002) was revealed when a participant said:

I do have to disagree that the PE only section of content literacy is helpful. I feel that the professor does not understand the inner workings of physical education and that she does not understand why our lesson plans are set up the way they are. I also feel that there are no other perspectives in the class. We all have similar backgrounds and similar interests so the discussions just become one or two people talking and everyone else agreeing with them. I think that at times we are also being from the same background overpower the professor and get things changed in our favor.

Interviews

The interview of three PETE candidates, Max, Johanna and Jonathan, took place the afternoon following their PETELIT final exam. Questions asked during the interview focused on the teacher candidates’ experiences in the course, what they learned, and whether the class was beneficial (see Appendix C). Four themes emerged from this data set: marginalization, transformation, application and collaboration.

Marginalization. Without prompting, participants addressed their apprehension in that their past experiences in their general education courses, had not always been positive. They found these outside courses did not relate to their content area to them and this was just another required course they must live through. Max said that his secondary methods class “was terrible because that was with 95% of other education majors. Whenever we did group work we were in groups (with) other education majors ... I was the only physical education major in my classroom and there were about 30 kids”. Johanna expanded on Max’s response saying “(He) hit it on the head with the secondary methods class. We did a lot of group work and it seemed like they (classmates) didn’t get it sometimes what we were going through, because our classroom is so different than theirs”. While agreeing with the two previous comments, Jonathan noted that another issue he experienced was the lack of PETE colleagues in his secondary class (N = 4), however, he had more than most. “I thought it would be like (my previous college of education class), where you’re with everybody else and they just don’t

see how it relates to you. I think a lot of us felt that going in ...". Similarly, Max said:

I did not like my secondary education class all that much, so I wasn't too excited for (the PETELIT literacy class) ... I had the mindset going in that it would be the same, but that we were just going to be with our PE (physical education) buddies.

Lastly, Johanna noted "Mine were the same I thought it was going to be how to do book reports and essays. Nothing really had to do with physical education". Participants shared that while their education courses included strategies, examples and clinical situations, they did not relate to physical education. "Most of the examples in (the Introduction to Secondary Education course was) not geared towards us. They were always geared towards the others in class", said Max.

Johanna, Max and Jonathan acknowledged a sense of marginalization by others in traditional education courses. While all three believed their instructors were interested in their educational viewpoints, they did not feel the same way about their peers. Max was the first to say:

Every time I would give my presentation or my thoughts on it (a specific topic); it would always be about physical education. It seemed like the other people didn't care what I had to say.... I met with the teacher on and off, inside and outside of class, because she definitely cared what I was doing with my work. I thought the other students didn't really care.

Johanna related to this in the context of having to work with a non-physical education-teacher education classmate during an assignment. "I would be talking to an English major and they would look at me like 'who cares'". Like Max, she believed her professor was interested in her learning experiences, "I had a great teacher. I loved her. She helped me a great deal ...". Similarly, she said:

I think the students (education majors) just think physical education is just about throwing the ball and from what I have seen, for some of them it's the first time those kids in history or English wrote a lesson plan. And I was looking at it (the lesson plans in English and history), "this is it? This is all you have to do", I mean I showed them mine and they are like ... they didn't get it. They don't get it.

While marginalization came through in relationships within education classes, there were instances when it was revealed through the professor's assignments. Jonathan shared that in a previous course, while classmates were to focus on their area of study, physical education majors were required to work outside of their area of expertise.

We had to do the school handbook project and I just felt, the group I had to work with we had two physical education majors not only did we have to do the physical education part, but we had to do health and everything else with everybody making the assumption that you can't just do physical education, you have to do something else.

While this was one example of marginalization through an assignment, the level of frustration of all three participants by Jonathan's comment was identifiable by their sighs and facial expressions.

Transformation. During the interview, the three participants provided many examples of how they could incorporate literacy into physical education. Their traditional expectations for incorporating literacy into the movement curriculum were framed in the context of having to require their students to sit and read during the physical education lesson. This mindset would be counterproductive to getting students physically active, especially when physical educators may only meet a class twice per week. Sharing her pre-class view on what literacy would look like in a physical education classroom, Johanna said: "I thought this was going to be how to do book reports and essays. Nothing that really had to do with PE. But after the class, I got it wrong. You can have an activity with literacy in it in your physical education class ...".

The idea of including literacy as a means of not only assessing students in physical education, but in teaching skills related to the affective domain, caused Max to reflect on his assumptions and the possibilities of expanding K-12 learning experiences:

... I had no idea how you could implement so much literacy into physical education to assess your students, to make sure they are learning and to bring in other aspects like health. Not just health, but everyday issues that grammar and high school students will run into like trust, engaging with others, honesty, things like that. We learned over 100 literacy strategies in the class and we can relate all of them to physical education.

Given that many educators may hold similar assumptions, Jonathan's notion of "just reading and writing" seemed logical,

... I couldn't quite understand why we had to take it (the literacy course) or how it relates, and I think a lot of us felt going in that it was going to be trying to do what you have done throughout your childhood and schooling in language arts classes and English classes—you know standard what people think literacy is—just reading and writing

Reflecting on the semester, Johanna, Max and Jonathan, acknowledged that many of the concepts and strategies discussed in PETELIT where things they had previously learned in their major courses (e.g., reciprocal teaching and checking for understanding), and began to think of ways to apply literacy to their teaching. For instance:

... Some of the stuff we have already been doing (in major classes), we just didn't know it and you learn to focus it a little more so that it is more related. We do things when we are in our classes, have peers demonstrate or have peers teach them (classmates) if they are struggling and that's one of the strategies we talked about in class, reciprocal teaching which doesn't only have to be in a structured classroom, but it can be the same in the gym ... just how we normally do things, having the students teach each other—is literacy like reading. Writing doesn't always have to be the focus, but listening and presenting ... we do that already. (Max)

Candidates were taught in their first PETE methods course that checking for student understanding was an important learning technique, aiding in students' comprehension.

When we ask them questions... that's something we always put in our lesson plans, but I never dreamt of it being part of literacy. Checking to make sure they understand, they answer your questions, they may even demo it for you. (Johanna)

Johanna also acknowledged she had learned much about literacy during the semester and recognized every teacher's ability to incorporate it throughout the curriculum. "... we can do so much for them and it is not just writing. It's listening; it's helping them any way we can". During the course of the interview, Johanna, Max and Jonathan shared that one of the semester projects was to create a document containing 25 strategies for incorporating literacy into the physical education curriculum. Every PETELIT student submitted a document containing 25 strategies and an implementation example for each strategy. Thus, participants and their classmates were able to leave their course with 25 different ways to include literacy strategies into their physical education lessons.

Application. Upon starting the semester, participants were concerned with how the incorporation of literacy into the movement curriculum might impact ALT-PE (academic learning time in physical education) (Rink, 2010). ALT-PE is directly related to the amount of quality physical activity time associated with student learning in the psychomotor domain. Candidates learn early on that they must have a high ALT in physical education in order to make any significant learning changes to a student's motor skills and physical fitness levels. Given their traditional expectations of literacy (e.g., sitting and reading a book), Johanna, Max and

Jonathan were hesitant to include literacy into their teaching, as they thought it would take away from the physical education curriculum. This is a valid concern given that school districts have a limited time allotted to physical education (e.g., once or twice a week), if at all. However, by the end of the semester, Jonathan, Max and Johanna were eager to share what they had learned and the natural ways in which they now believed literacy could be partnered with the movement curriculum. When asked what they had learned about incorporating literacy, Johanna was the first to say:

A lot. Just like I said earlier it does not have to be just reading or telling them something, it could be even when we are doing our cues, that's literacy. Or when we are demonstrating something for them. Four little cues for shooting a basketball—B.E.E.F. something like that. That's literacy. Those are the things I took for granted ... so just little things. It will be so easy to put those in my program once I get out there.

In referencing the learning acronym "B.E.E.F." (bend knees, eyes up, elbows in, feet still), which identifies the key components to shooting a free throw in basketball, Johanna was demonstrating a mnemonic strategy that a physical education teacher would use to sequence motor skills by identifying their key components.

Johanna, Max and Jonathan discussed other newly learned strategies such as having their future students write in a journal, complete admission and exit slips and "KWL" (K-know, W-want, L-learn) literacy strategies learned in PETELIT. Given that physical education classes tend to be larger than traditional classes, journal writing was viewed as a good way for physical education teachers to communicate with their students, took minimal amounts of class time, would help their students identify and reflect on their progress and possibly serve as a motivational tool. Max talked about using journals as a way of having students identify what they had learned in his class, their level of enjoyment and reflecting on how each student might use the activity outside of the school days. He finished by stating that "There are multiple things you could do with a journal. That's why I like it. It is open to whatever I decide to do with it". Playing off of Max's comments, Johanna believed that incorporating journals might encourage students to "write outside of class, where they can get into more free-writing". She believed that this would take minimal time on the student's part and again, help them identify what they had learned. Jonathan's comments on incorporating journals focused on helping students with recall:

You can get them to write things down and maybe flip back and see their own progress, which we have talked about in our other classes. I don't think as much in the teaching (education) classes, but in the other Kinesiology and Recreation major classes we've taken... getting them to see a little bit of progress, helping them stick to the program and keeping doing it more than all the motivation anybody else could give them.

Admission and exit slips were seen as tools used to measure what students had learned during the physical education lesson and as a method to engage learners. Posing questions requiring written or verbal responses were viewed as helping students recall material previously taught. Max cited his favorite strategy was "KWL." Originally introduced by Ogle (1986), "KWL" is a three-step process requiring learners to: (1) identify what they already know; (2) what they want to learn; and (3) what they learned. Johanna interjected that she saw KWL as a strategy similar to one used by one of the researchers, "It's like your quizzes".

Collaboration. The fourth and final theme that emerged from the interview data was the sense of collaboration and community that was established among classmates and the professor. When focused on classmates, interviewees revealed a comfort in being in the "same boat", when working on course projects.

... with everybody else in (the literacy class) being physical education majors ... it made it a lot easier because they knew that when you did certain projects that everybody else had the same focus and sort of the same respect for physical

education and put the same emphasis on it just having them in class means I probably knew 75% of the people ... it was a more comfortable atmosphere with people you have already worked with. You can talk about projects, bounce ideas off of each other, not only in (the literacy class), but in your other classes, which made it easier... (Jonathan)

Johanna said "... when we all got together, it became like a group project instead of just 'my project'. I think we all got on board because we knew we were going to have to put this into our program when we get out ... ". Johanna expanded by noting that, "If you're not doing it right and there are others not doing it right, you are in the same boat. We all struggled, but then again we also came through and I think it showed".

Participants believed that their stress levels were immediately reduced by being in a major's only section: "... Because everybody is going through the same experience, taking the same class and we are all sitting there at first going 'how does this apply'? And we are all going to figure that out together" (Jonathan). They believed that they received much more out of the class due to the majors' only designation. "I think that we just gained so much more knowledge than we would have in a normal (content literacy) class" was Max's comment.

In addition to the majors' only label, respondents noted the role of the professor in developing a community of learners, for the undergraduates in her class and for herself. Teacher candidates were aware their instructor, Mrs. W. was not from a physical education background and that she had met with two faculty members from the PETE program in order to obtain literacy resources for her class. This was seen in a very positive light by the participants and led them to highly recommend the instructor:

... She was an excellent teacher. She struggled with us, but in the same breath we all struggled together and it came out in the end. She got us all to understand what we needed to do in that particular class. With most classes I have, I will tell them (peers), whoever, asks me, I will tell them what teacher to take. I would tell anybody to take her. I thought she was great. She was an excellent teacher. (Johanna)

When asked what made Mrs. W. "great", respondents Johanna said:

She was patient with us, (because) I know she did not understand a lot about physical education, so she had to learn from us a lot of things and I know she met with you and she had to learn stuff from you ... it was the part that she was patient enough with the whole process with us that we came through and got all these strategies and understood what she was trying to teach us.

Jonathan immediately followed with:

Mrs. W. did do a great job ... one of the reasons I think she did such a great job was she spent a lot of time, some of her free time, looking for strategies that physical educators are doing right now ... One of the key things that helped me and partially made the class a success was the professor and how much time they were willing to put in to make it relevant for all of us.

Max added, "But the best thing I thought Mrs. W. did the best was (teach when) she had a classroom with just a chalkboard. She did a fabulous job".

Discussion

While participants began the semester with hesitation and a traditional mindset of what literacy was, they came away with a different viewpoint and left the course with numerous literacy strategies to implement in their physical education classrooms. Many benefits were evident through the narrative comments from the surveys, the discussion board and the interview. The PETELIT course required the instructor to only focus on physical education and on how to incorporate literacy into one subject area. This provided the students and

teacher with the opportunity to learn about the relationship and implementation of literacy in physical education. Moreover, PETE candidates, who were at first pessimistic about the integration of literacy into their curriculum, were able to acknowledge and recognize that literacy is a teaching tool or that can indeed be incorporated into the physical education class.

The overarching message from this inquiry is one that teacher education programs profess to all of their teacher candidates: the need to create classroom environments that are safe, positive, and promote a willingness to learn from all in the class and demonstrate to the learner how to apply the materials being taught. While this may not be possible in every class, it is the kind of environment for which all teacher education programs must strive. As previously described, teacher candidates in this physical education only section observed the willingness of their instructor to learn about physical education and help teacher candidates learn how to incorporate literacy into their field of study. The ability of the professor to work with these PETE candidates in applying literacy strategies made incorporating literacy into their lessons achievable. This should take place within every content literacy course.

Jonathan shared that upon meeting with the professor to pick up his final paper, they spoke about the “good time” the professor had with her physical education majors. “We were just kind of wondering why other majors hadn’t tried this”. His insights continued in that he thought, “if it changed where everybody had their own specific section, it helps to narrow it down so that it is relevant to those students”. As previously stated by Grady (2002), literacy strategies are different from one discipline to another, and some believed the best way for students to learn these strategies was from someone who knew that field of study.

Financially, it would not be possible for a College of Education to offer a specific literacy class for each secondary level major, a variation might be possible; for instance, sections of the course for majors in mathematics, biology and chemistry majors could be created, and another for section for physical education, music and art? Additionally, knowing that a separate section of content literacy may not be feasible, instructors in such courses must make every attempt to integrate all content areas into the curriculum. Literacy faculty should make it part of their professional development to be aware of all content areas represented in their sections.

Instructors at the university level, teaching general teacher education courses, must have a general knowledge about the curriculum in each content area and use them as examples, so that all teacher candidates are included in class discussions. As stated by one of the participants, no other perspectives (e.g., science education, history education, etc.) were presented in class and there was no debate or questioning of techniques, because all participants were from the same field (e.g. physical education) and believed the same thing. Since all perspectives were the same, there was no disagreement. Furthermore, the content literacy class related directly to the teacher candidates’ content area, so they did not have to reflect on what was discussed in another content area and try to address it for their major. It is possible that segregating PE in the content literacy class simplified the curriculum. Different perspectives in any class can be of great benefit. Teaching in the secondary schools is not a profession where one can close the door and be responsible for one’s own class, and at the same time, omit other content areas, especially if each content area wishes to survive.

In reviewing the research questions for this study, the researchers believed it was beneficial to have a segregated section of PETELIT. Findings from the study revealed strengths and weaknesses in the content literacy course. However, the idea of separating programs could be considered superficial. While there was an impact on these teacher candidates, they did not have access to undergraduates from different majors.

As in every research study, limitations are prevalent. To strengthen the study, one would want a larger number

of participants, identify more than one teacher preparation program and more than one university instructor. Finally, future research stemming from this study, would be to find out how professors in undergraduate literacy courses incorporate multiple content areas into their teaching and its impact on teacher candidates.

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Appendix A

Secondary and K-12 Programs Offered at the Research Site/University

Agriculture	Geography
Art	Geology
Biology	Health
Business	History/Social science
Chemistry	Mathematics
Communication	Music
Dance	Physical education
English	Physics
Family consumer science	Technology
Foreign language	Theater

Appendix B

Likert/Open-Ended Survey

1. What is literacy?
2. What is the role of literacy in teaching physical education?
3. What expectations do you have for this section of C&I 214 designed for Physical Education-Teacher Education majors?
4. I'm beginning the semester with an open mind about the content I will learn in C&I 214.
 - a. Strongly agree
 - b. Agree
 - c. Neutral
 - d. Disagree
 - e. Strongly disagree

Explain your answer:

5. I understand why I have to take C&I 214 as a Physical Education-Teacher Education major.

- a. Strongly agree
- b. Agree
- c. Neutral
- d. Disagree
- e. Strongly disagree

Explain your answer:

6. Reading is directly related to teaching and learning in physical education.

- a. Strongly agree
- b. Agree
- c. Neutral
- d. Disagree
- e. Strongly disagree

Explain your answer:

7. Writing is directly related to teaching and learning in physical education.

- a. Strongly agree
- b. Agree
- c. Neutral
- d. Disagree
- e. Strongly disagree

Explain your answer:

8. Listening is directly related to teaching and learning in physical education.

- a. Strongly agree
- b. Agree
- c. Neutral
- d. Disagree
- e. Strongly disagree

Explain your answer:

9. Speaking is directly related to teaching and learning in physical education.

- a. Strongly agree
- b. Agree
- c. Neutral
- d. Disagree
- e. Strongly disagree

Explain your answer:

10. By the end of the semester, I would like to know...

11. Which of the following activities could be incorporated into a physical education class?

- a. Advance organizers
- b. Charts
- c. Graphic organizers
- d. Admit slips or exit slips
- e. Discussion
- f. Vocabulary activities
- g. Concept maps
- h. Brainstorming for prior knowledge
- i. Cooperative learning
- j. Questioning for higher order thinking
- k. Project journal

Appendix C
Interview Protocol

1. Tell us about your experience in C&I 214.
2. Before you began the semester in C&I 214, what were your perceptions about the course? (Probe: What had you heard about the class?)
3. You have learned that literacy is comprised of not only reading, but speaking, listening and writing as well. What have you learned this semester about incorporating literacy into the physical education curriculum? (Probe: How might you see yourself including literacy into different units of instruction?)
4. If you had to describe the PETELIT course to a future C&I 214 student, what would you say? (Probe: What descriptors would you use?)
5. On the survey at the beginning of the semester, many of you wrote that you wanted to know more about why literacy is important in physical education. What did you learn about this?
6. On the survey at the beginning of the semester, many of you wrote that you wanted to learn how to apply literacy into physical education. What did you learn about this?
7. Prior to 214, how did you see literacy fitting into physical education, and after completing 214, has your view changed? (Probe: Why do you think your view has/has not changed?)
8. What were the positive aspects of having a physical education focus only in 214?
9. Is C&I 214 important for majors? Why or why not? (Probe: What suggestions do you have to make this a stronger course for future physical education-teacher education majors?)
10. What are the similarities and differences between your preconceptions and your actual experiences?